



# EM Fact Sheet

Ogden Air Logistics Center  
Environmental Management Directorate  
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Hill AFB, Utah 84056-5137

## Natural Resources

**Purpose:** The purpose of this fact sheet is to provide you with an outline of the Natural Resources Management Program in the Environmental Management Directorate at Hill Air Force Base. Governed by several federal and state laws, DOD Directives and Air Force Instructions, the natural resources management team uses an ecosystem management approach to integrate individual components of land management, wetland conservation, fish and wildlife management, pest management, and others. The lands and natural resources of Hill Air Force Base and the Utah Test and Training Range must be managed in an effective manner that coordinates multiple use requirements such as testing, training, industrial, residential, commercial and recreational with ecosystem sustainability.

**Mission:** The conservation challenge facing us is unique in that we must provide **access** to realistic military training and testing areas in conjunction with **sustaining** natural resources on Department of Defense lands for future generations while obeying all Air Force regulations and federal and state laws. **In accomplishing this task an all-enveloping management method is used which incorporates society and institutional aspects into the overall ecosystem.**



**The management team:** The Environmental Management Pollution Prevention (EMP) Natural Resources Team and corresponding responsibilities are shown in Table 1.

**Table 1 - The Natural Resources Team**

CONTACT	PROGRAM
<b>Marcus Blood</b> 777-4618 Marcus.blood@hill.af.mil	Natural Resources Program Manager
<b>Sanford Moss</b> 775-6972 Sanford.moss@hill.af.mil	Natural Resources Program GIS Specialist

## Program Highlights

**Methodology:** The Natural Resources Team acts as trustees in establishing programs to implement policies and procedures, technical review, onsite assessments and corrective actions to ensure adequate protection of sensitive natural resources and continued military use of land, air, and water. Ecosystem management includes inventories, management plans, and monitoring programs to assess conservation needs associated with water and soil, landscapes, urban forests, fish and wildlife, wetlands, threatened and endangered species and outdoor oriented recreation resources. Examples of other management activities include pest control and grazing and crop out-leasing.

### - Natural Resources Program Operating Principles:

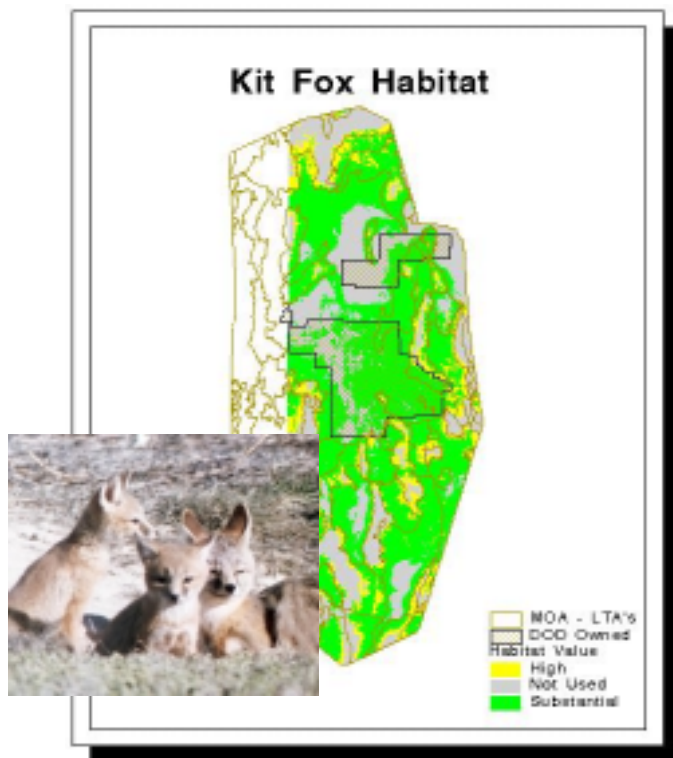
- 1) Ensure military access to land, air, and water through ecosystem management.
- 2) Sustain ecological units and habitats rather than individual resources and species.
- 3) Sustain biodiversity by measuring and managing natural and human impacts to the ecosystem.
- 4) Provisions for accountability: Environmental Compliance Assessment Management Program (ECAMP) and Business Performance Indicator (BPI) metrics.

### - Natural Resources Program Activities:

- 1) Consultations with regulators as required by the Endangered Species Act and the Clean Water Act.
- 2) Environmental assessments (EA), environmental baseline surveys (EBS), and AF Forms 332 and 813 completion.
- 3) Implementing and updating the Integrated Natural Resources Management Plan (INRMP).
- 4) Geographic information systems (GIS) modeling to manage biodiversity health and assess potential impacts of proposed actions.
- 5) Identification of resources through field inventories and remote sensing
- 6) Monitoring strategies including Habitat Evaluation Procedures (HEP) and Ecosystem Monitoring.
- 7) Methods to mitigate and restore resources: revegetation and rehabilitation based on solid data from habitat evaluation, field surveys, and site inspections

**Data Management:** In order to more cost effectively manage the more than 1 million acres of Hill AFB associated lands, the natural resources team has developed a program that utilizes the database management capabilities of a geographic information system (GIS) and global positioning system (GPS). This system allows us to efficiently perform inventories and mapping to identify the distribution of different classes of ecosystems and link corresponding critical species and wetlands information to determine areas of special concern.

This enables Hill Air Force Base to coordinate mission activities with resource protection over large regions thereby avoiding potential corrective action. As more data is collected and developed the database system will be capable of processing various ecological analyses of the UTTR including habitat evaluation and ecological trends.



Using a geographic information system (GIS), the habitat of the kit fox (*Vulpes macrotis*) is identified by integrating satellite imagery data and ground survey techniques.

**Ongoing Projects:** Just a few of the projects the Natural Resources Program is currently directing have been listed below.

- Threatened and Endangered Species Habitat Survey
- Wetlands Survey and Mapping
- Drought Tolerant Vegetation Species
- Pesticides Reduction and Landscaping
- Urban Forestry / Tree City USA
- Ecosystems Classification and Monitoring Program

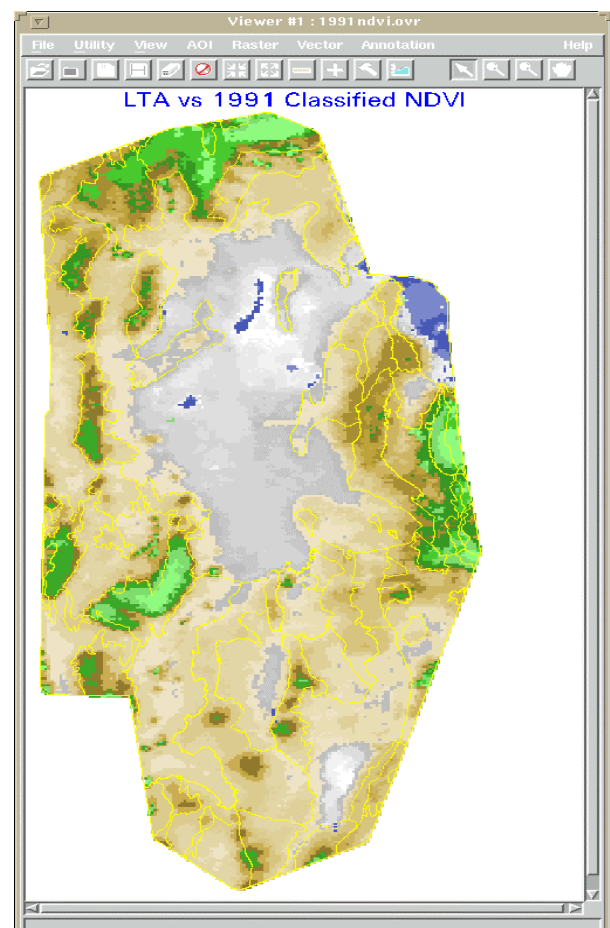
Wetland management and protection on Hill AFB is primarily accomplished through mitigation in the project planning phase due to the relatively scarce quantity of this resource. Wetland management and protection at the Utah Test and Training Range is very unique. No other area in the world has fresh water wetlands on alkali mud flats. This area has been identified as a historical flyway for migratory waterfowl, shore birds and neotropical birds.

The development of drought tolerant grass species for use at both the Hill AFB and the UTTR will have an improved impact on the ecosystem. By planting desirable species of grasses that will out-compete pest vegetation and provide less desirable habitat to

certain pest insects, bird-aircraft strike hazards along the airfield can be significantly reduced without the use of harmful chemicals.

Passive outdoor recreation development at the Pond 3 Nature Park will greatly enhance the quality of life for all military and civilian employees by providing 100 acres of a warm water fishery, walking and riding trails, watchable wildlife, picnic facilities and an 1800 square foot log cabin used for gatherings. The area will also contribute to reductions in local air pollution via the influence of trees, and vegetation, decreased noise pollution and visual screening, decreased soil erosion and increased overall base aesthetics. Commitments to future studies will include energy reductions.

The conservation resource group is enthusiastically involved in conducting educational seminars throughout the local school system, conducting mini seminars, poster sessions in association with Arbor/Earthday celebrations. Over 5,000 individuals state wide have benefited as a result.



Ecosystem classification and mapping is enabled by delineating areas containing correlations between elevation, slope, and aspect.

**Web Page:** Find out more about the management of Hill Air Force Base Natural Resources by visiting the web site: [www.nr.usu.edu/~hafb/hafb.html](http://www.nr.usu.edu/~hafb/hafb.html).